SEON
Mobile Surveillance

vMax Video Management Software

vMax™
vMax™ with Tracking

User Guide

Document Part Number 700-0036 R005

Who This Guide is For

The *vMax Video Management Software User Guide* provides information for installing the software, connecting the Media Cartridge Reader or HD Reader to a computer, playing back, searching, archiving files, and troubleshooting the Media Cartridge Reader or HD Reader.

Conventions Used

CAUTION

Cautions identify conditions or practices that could result in damage to the unit or other equipment.

Important: These notes describe things which are important for you to know, but are not as serious as a Caution.

Recommendation: These notes provide tips for optimum performance of the DVR system.

Abbreviations and Acronyms

Acronym	Definition
AVI	Audio Video Interleave file is a common file format for saving video files.
ARV	Archive file
AVR	Archive file for Explorer MX4, Trooper TL2, and TL4
.bin	binary file
.eds	proprietary file format for Trooper TR1 and TR4
.edr	proprietary file format for Explorer EX4, EX8 Plus, and Premier
.txt	text file
BMP	Bit mapped graphics format
DVR	Digital Video Recorder
GPS	Global Positioning System
HD	Hard drive
JPEG	Joint Photographic Experts Group
MPEG	Moving Picture Experts Group
NTSC	National Television System(s) Committee is the analog television system used in Canada, the U.S., Japan, South Korea, the Philippines and other parts of the Americas.

Acronym	Definition
PAL	Phase-alternating line system used in broadcast television systems
PC	Personal computer
USB	Universal Serial Bus

Finding Information Online

You can find more information about Seon Design Inc. as well as its products and services at **www.seon.com**.

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CHAPTER 1

Introduction

This chapter introduces the features of the vMax Video Management Software.

1.1. vMax Software Product Features

Two versions of vMax video management software are available:

- vMax software.
- vMax with Tracking software includes MapPoint® 2009 software to display the location of a GPS-enabled vehicle on a street map with date and time. (Activation is required.)

1.1.1. vMax™ and vMax™ with Tracking Software

Software Features	vMax	vMax with Tracking
Multiple views—1, 4, or 9 video channels—for video playback and monitoring.	•	•
• Playback at normal speed or from 0.10 × to 16× normal speed • Playback video forward or backward	•	•
Search for video from a Segment or Events list, or by Time and date.	•	•
Archiving options—each individual channel can be archived as a AVI file and individual images to bmp or .jpg files.	•	•
Single license of Microsoft® MapPoint 2009 software		•
Map Viewer window synchronizes with the video playback and displays the precise location of the vehicle on a street map.		•
Complete, updated U.S. and Canadian maps.		•

Install the software from the CD (s) before connecting the Media Cartridge Reader or HD Reader to the computer for video playback.

1.2. Media Cartridge Reader

The Media Cartridge Reader is for removable hard drives for Seon DVR systems:

- Explorer® MX4 Basic and Plus
- Trooper® TL2
- Trooper TL4

The Media Cartridge Reader uses the USB cable to connect to the USB 2.0 port on the computer and allows playback and archiving of video footage. See Figure 1-1.

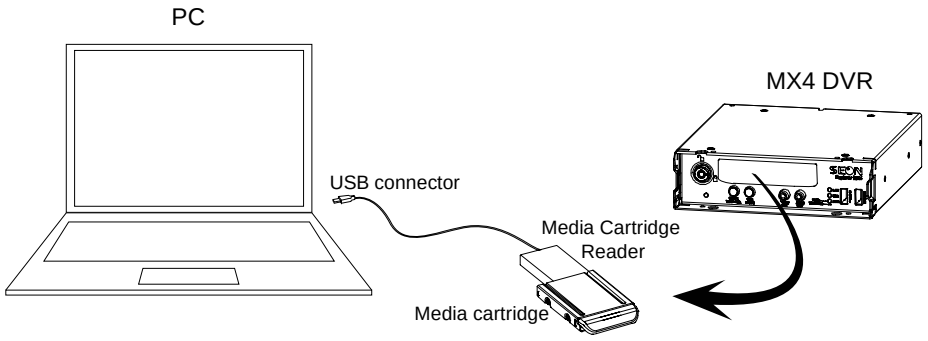


Figure 1-1 Explorer MX4, Trooper TL2, and TL4 use Media Cartridge Reader

1.3. HD Reader Video Player

The HD Reader is a video player for removable hard drives for Seon DVR systems:

- Trooper TR1
- Trooper TR4 Basic and Plus
- Explorer EX4 Basic and Plus
- Explorer EX8 Plus
- Explorer Premier

The HD Reader video player connects to a USB 2.0 port on the computer and allows playback and archiving of video footage. See Figure 1-2.

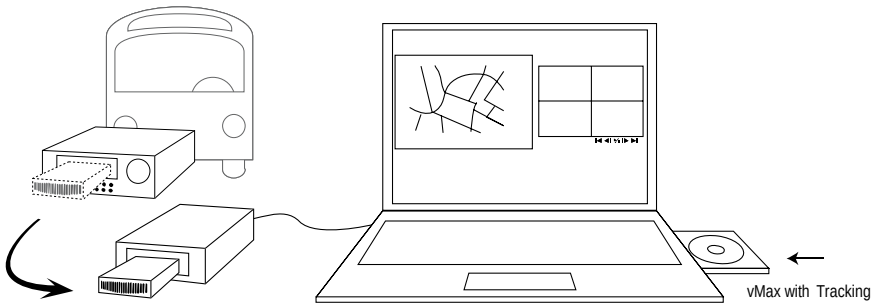


Figure 1-2 Explorer EX4, Trooper TR1, and TR4 use the HD Reader

CHAPTER 2

Installation and Setup

This chapter describes how to:

- Install the vMax software or vMax with Tracking software.
- Activate the vMax with Tracking software.
- Connect the Media Cartridge Reader to a computer.
- Connect the HD Reader video player to a computer.
- Insert and remove a hard drive from the HD Reader.

Install the software from the CD (s) before connecting the Media Cartridge Reader or HD Reader to the computer for video playback.

2.1. System Requirements

To use the vMax software, you'll need a computer with the following minimum system requirements:

Table 2-1 Minimum System Requirements

Computer/Processor	• Dual Core CPU or higher recommended • 1024 × 768 monitor resolution • Sound card and speakers • USB 2.0
Operating Systems	Windows® XP Service Pack 3, Windows Vista™, or Windows 7 (32-bit and 64-bit versions)
Memory	1GB RAM or higher recommended
Disk Space	10MB of available hard-disk space
Drive	CD-ROM drive
Other Requirements	Adobe® Acrobat® Reader to view the *vMax Video Management Software User Guide* (available on the vMax software CD or vMax with Tracking software CD)

2.1.1. Unpacking the Media Cartridge Reader

When you unpack the Media Cartridge Reader from the shipping box, you should have the following items:

- Media Cartridge Reader
- Power supply
- AC power cord
- USB extension cable (optional)
- vMax software CD (1 CD)

OR

- vMax with Tracking CD with MapPoint 2009 software CDs (3 CDs)

2.1.2. Unpacking the HD Reader

When you unpack the HD Reader from the shipping box, you should have the items shown in Figure 2-1.

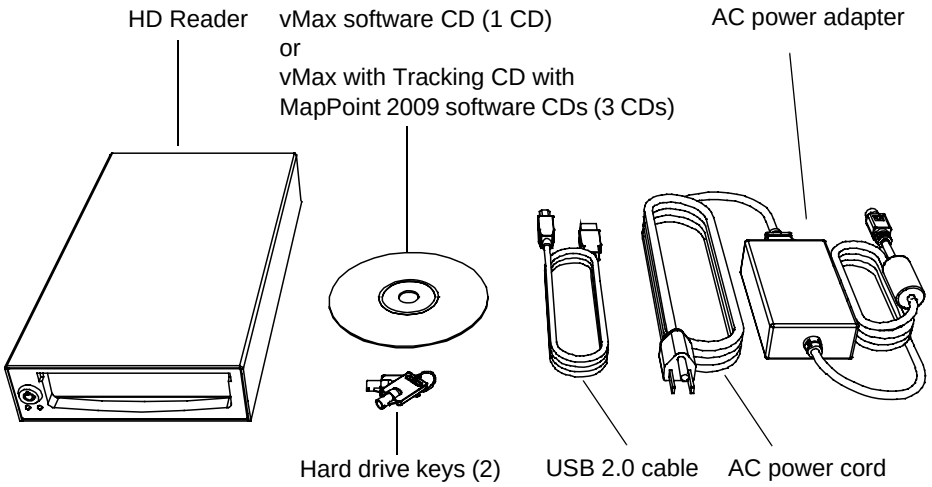


Figure 2-1 HD Reader video player, software CD (s), and accessories

Important: The HD Reader does not include a hard drive. If any of these items are missing, please contact your Seon distributor.

2.2. Installing the Software

The vMax software requires that you have **Administrator** rights to the computer to install and uninstall the software although non-administrator users can run the software.

Both versions of the software, vMax and vMax with Tracking software, let you playback and manage the video clips recorded on a DVR.

Additionally, vMax with Tracking software obtains GPS data from the video clips and shares it with the MapPoint software to display the position of the vehicle during video playback. MapPoint software launches in a separate window so that one of the camera views is not used up. (See “Using the Map View Window” on page 3–1.)

Table 2-2 identifies the steps in installing the vMax software. Installing the vMax with Tracking software includes the additional step of installing the Microsoft MapPoint 2009 software.

Table 2-2 Summary of the Installation Process

Installation	Steps	vMax	vMax with Tracking
1. Welcome screen	• Install MPEG-4 Codec. • Install vMax Software. • View User Guide.	•	•
2. Install vMax software	• Welcome: vMax Setup wizard guides you through the installation process. • License Agreement. • Select Destination Location. • Ready to Install. • Select Additional Tasks.	•	•
3. Install MapPoint 2009 (for vMax with Tracking version)	• Install MapPoint 2009 software (two CDs). • Seon Software License Agreement.		•
4. Complete installation	Completing the Setup wizard.	•	•

To install the vMax software, see “Installing the vMax Software” on page 2–3.

To install the vMax with Tracking software, see “Installing the vMax with Tracking Software” on page 2–7.

2.2.1. Installing the vMax Software

To install the vMax software on your computer automatically:

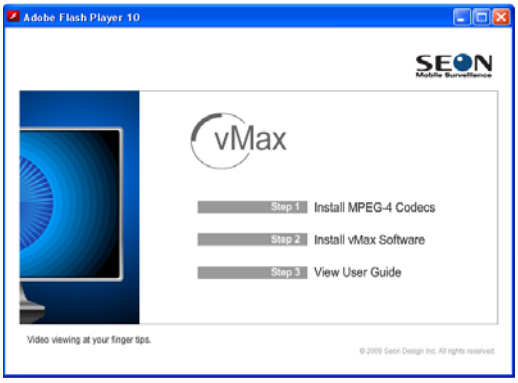
1. Close all programs and temporarily disable any virus protection software running on your computer.
2. Insert the vMax software CD into your CD-ROM drive.

   The autorun.exe program should launch automatically on your computer.

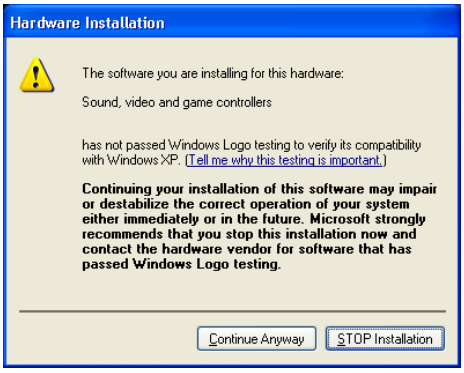
   If the installer does not launch automatically, run the program called **CDAuto.exe** from your CD. Click on My Computer on your desktop and click on the CD drive. Double click on the **CDAuto.exe** program.

2.2.1.1. Installing MPEG-4 Codec

1. Click on Install MPEG-4 Codecs to install the MPEG-4 converters for optimal video clip storage.



The Hardware Installation window appears.


Hardware Installation
The software you are installing for this hardware:
Sound, video and game controllers
has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.)
Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.
Continue Anyway
STOP Installation

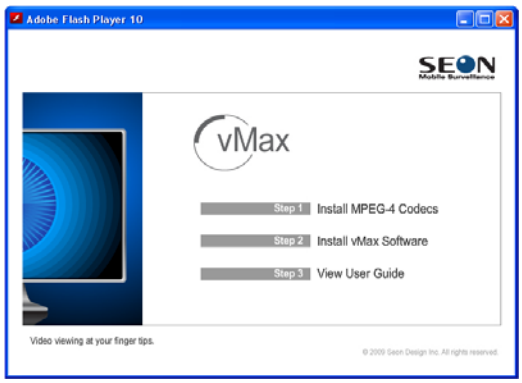
2. Click **Continue Anyway**.

   The main menu appears. Another message may appear that some Windows Files have changed and it asks if you want to repair. Click **Cancel** and then click **Yes**.

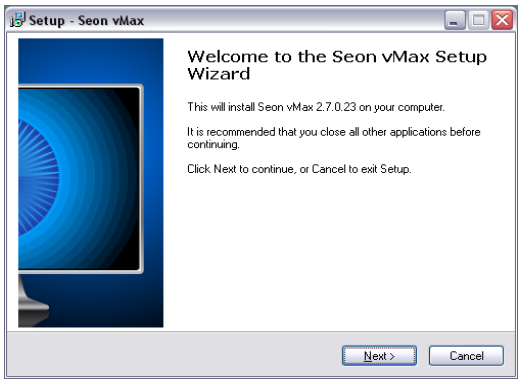
   If you have any questions, contact Customer Service (see back cover).

2.2.1.2. Installing the vMax Software

1. Click on Install vMax Software to install the main software.



Welcome to the Seon vMax Setup Wizard appears as shown.


Setup - Seon vMax
Welcome to the Seon vMax Setup Wizard
This will install Seon vMax 2.7.0.23 on your computer.
It is recommended that you close all other applications before continuing.
Click Next to continue, or Cancel to exit Setup.
Next >
Cancel

2. Click **Next**.

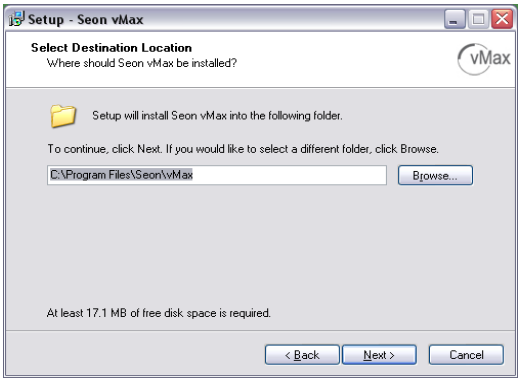
The License Agreement window appears.

Setup - Seon vMax
License Agreement
Please read the following important information before continuing.
vMax
Please read the following License Agreement. You must accept the terms of this agreement before continuing with the installation.
SEON DESIGN INC.
END-USER LICENSE AGREEMENT FOR SEON DESIGN INC. SOFTWARE
This End-User License Agreement (the "Agreement") is a legal agreement between you (either an
I accept the agreement
I do not accept the agreement
< Back
Next >
Cancel

3. Click on **I accept the agreement** to continue.

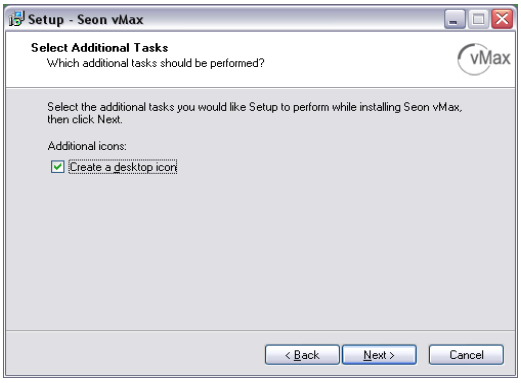
4. Click **Next**.

   The Setup Destination Location window appears. Seon recommends allowing installation in the default directory.


Setup - Seon vMax
Select Destination Location
Where should Seon vMax be installed?
vMax
Setup will install Seon vMax into the following folder.
To continue, click Next. If you would like to select a different folder, click Browse.
C:\Program Files\Seon\vMax
Browse...
At least 17.1 MB of free disk space is required.
< Back
Next >
Cancel

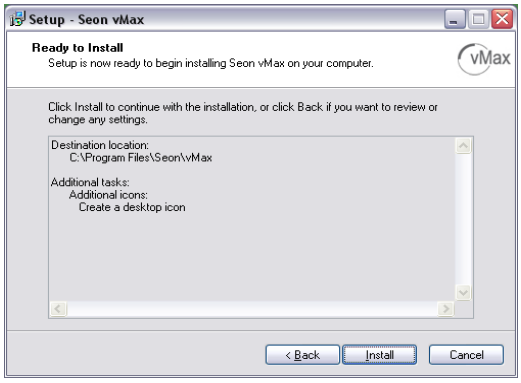
5. Click **Next**.

   The Select Additional Task window appears with the Create a desktop icon check box selected (recommended).


Setup - Seon vMax
Select Additional Tasks
Which additional tasks should be performed?
vMax
Select the additional tasks you would like Setup to perform while installing Seon vMax, then click Next.
Additional icons:
Create a desktop icon
< Back
Next >
Cancel

6. Click **Next**.

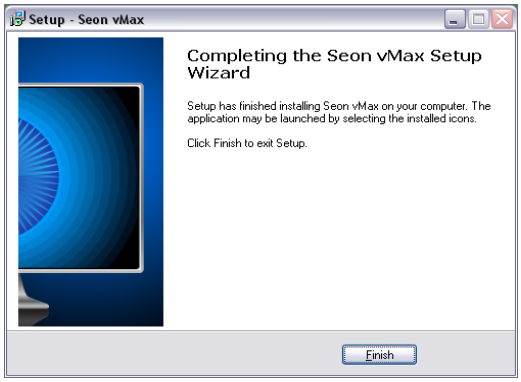
   The Ready to Install window appears.


Setup - Seon vMax
Ready to Install
Setup is now ready to begin installing Seon vMax on your computer.
vMax
Click Install to continue with the installation, or click Back if you want to review or change any settings.
Destination location:
C:\Program Files\Seon\vMax
Additional tasks:
Additional icons:
Create a desktop icon
< Back
Install
Cancel

7. Verify the settings and click **Install**.

   vMax installs on your computer.

8. Click **Finish** to exit Setup.


Setup - Seon vMax
Completing the Seon vMax Setup Wizard
Setup has finished installing Seon vMax on your computer. The application may be launched by selecting the installed icons.
Click Finish to exit Setup.
Finish

2.2.2. Installing the vMax with Tracking Software

1. Close all programs and temporarily disable any virus protection software running on your computer.

   Software activation is required after installing the vMax with Tracking and MapPoint software.

2. Insert the vMax software CD into your CD-ROM drive.

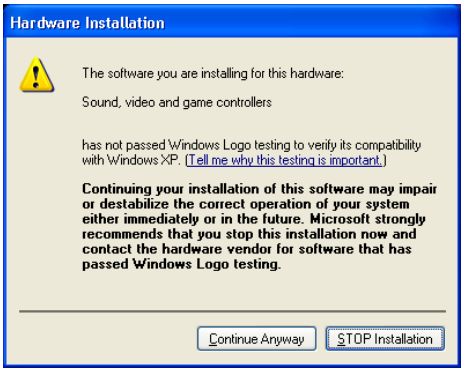
   The autorun.exe program should launch automatically on your computer.

   If the installer does not launch automatically, run the program called **CDAuto.exe** from your CD. Click on My Computer on your desktop and click on the CD drive. Double click on the **CDAuto.exe** program.

2.2.2.1. Installing MPEG-4 Codec

1. Click on Install MPEG-4 Codecs to install the MPEG-4 converters for optimal video clip storage.

The Hardware Installation window appears.


Hardware Installation
The software you are installing for this hardware:
Sound, video and game controllers
has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.)
Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.
Continue Anyway
STOP Installation

2. Click **Continue Anyway**.

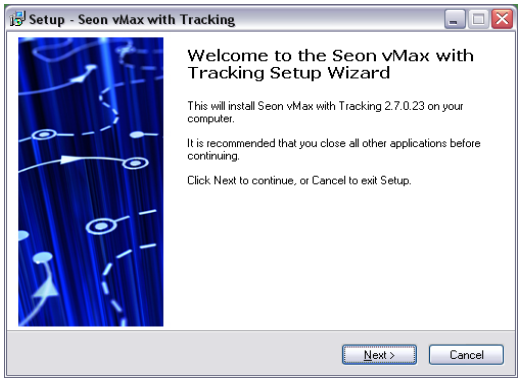
   The main menu appears. Another message may appear that some Windows Files have changed and it asks if you want to repair. Click **Cancel** and then click **Yes**.

   If you have any questions, contact Customer Service.

2.2.2.2. Installing the vMax with Tracking Software

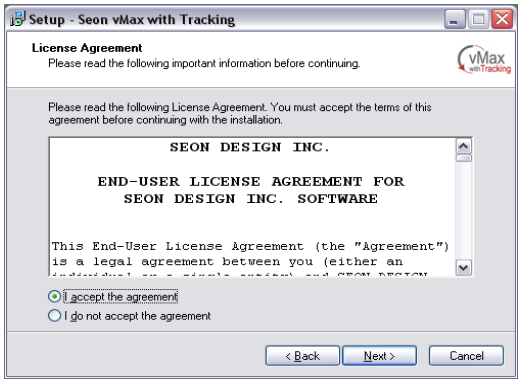
1. Click on Install vMax Software to install the main software.

Welcome to the Seon vMax Setup Wizard appears as shown.


Setup - Seon vMax with Tracking
Welcome to the Seon vMax with Tracking Setup Wizard
This will install Seon vMax with Tracking 2.7.0.23 on your computer.
It is recommended that you close all other applications before continuing.
Click Next to continue, or Cancel to exit Setup.
Next >
Cancel

2. Click **Next**.

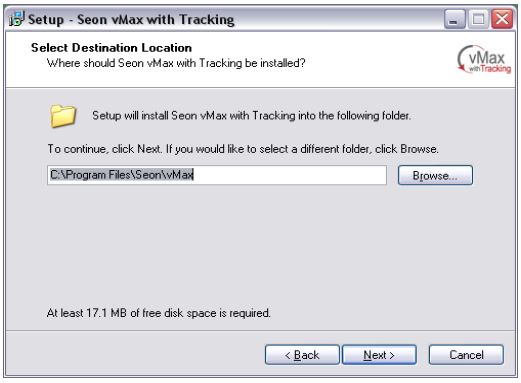
The License Agreement window appears.


Setup - Seon vMax with Tracking
License Agreement
Please read the following important information before continuing.
Please read the following License Agreement. You must accept the terms of this agreement before continuing with the installation.
SEON DESIGN INC.
END-USER LICENSE AGREEMENT FOR SEON DESIGN INC. SOFTWARE
This End-User License Agreement (the "Agreement") is a legal agreement between you (either an
I accept the agreement
I do not accept the agreement
< Back
Next >
Cancel

3. Click on **I accept the agreement** to continue.

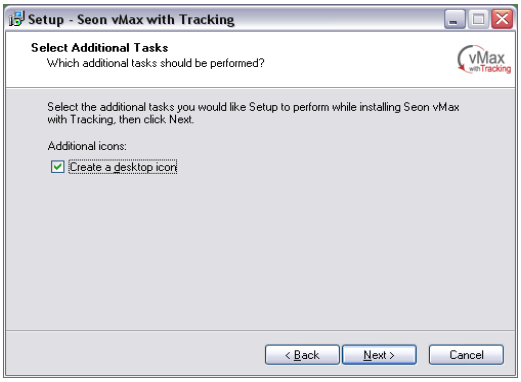
4. Click **Next**.

   The Setup Destination Location window appears.


Setup - Seon vMax with Tracking
Select Destination Location
Where should Seon vMax with Tracking be installed?
Setup will install Seon vMax with Tracking into the following folder.
To continue, click Next. If you would like to select a different folder, click Browse.
C:\Program Files\Seon\vMax
Browse...
At least 17.1 MB of free disk space is required.
< Back
Next >
Cancel

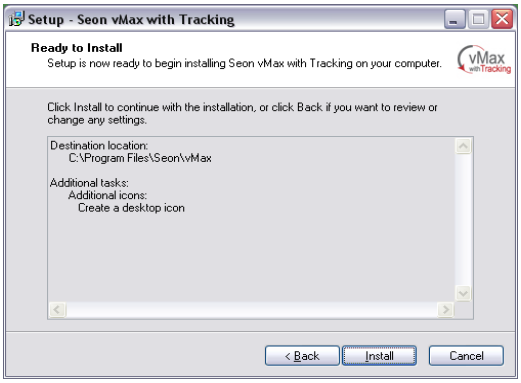
5. Click **Next**.

   The Select Additional Task window appears with the Create a desktop icon check box selected (recommended).


Setup - Seon vMax with Tracking
Select Additional Tasks
Which additional tasks should be performed?
Select the additional tasks you would like Setup to perform while installing Seon vMax with Tracking, then click Next.
Additional icons:
Create a desktop icon
< Back
Next >
Cancel

6. Click **Next**.

   The Ready to Install window appears.


Setup - Seon vMax with Tracking
Ready to Install
Setup is now ready to begin installing Seon vMax with Tracking on your computer.
Click Install to continue with the installation, or click Back if you want to review or change any settings.
Destination location:
C:\Program Files\Seon\vMax
Additional tasks:
Additional icons:
Create a desktop icon
< Back
Install
Cancel

7. Verify the settings and click **Install**.

2.2.2.3. Installing the MapPoint 2009 Software

If you are installing vMax with Tracking software, follow the on-screen directions to install MapPoint 2009. vMax requires Microsoft MapPoint 2009 to be installed to run the Tracking portion of the software. vMax with Tracking software obtains GPS data from the video clips and shares it with the MapPoint software to display the position of the vehicle during video playback.

Install MapPoint using the disks provided after the vMax installation has finished.

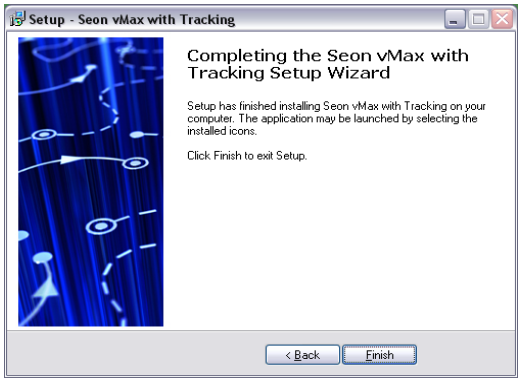
Setup - Seon vMax
License Agreement
Please read the following important information before continuing.
vMax
Please read the following License Agreement. You must accept the terms of this agreement before continuing with the installation.
SEON DESIGN INC.
END-USER LICENSE AGREEMENT FOR SEON DESIGN INC. SOFTWARE
This End-User License Agreement (the "Agreement") is a legal agreement between you (either an
I accept the agreement
I do not accept the agreement
< Back
Next >
Cancel

1. Insert the MapPoint software CD into your CD-ROM drive.

   The autorun.exe program should launch automatically on your computer.

2. Click **Next**.

   Completing the Seon vMax Setup Wizard appears.


Setup - Seon vMax with Tracking
Completing the Seon vMax with Tracking Setup Wizard
Setup has finished installing Seon vMax with Tracking on your computer. The application may be launched by selecting the installed icons.
Click Finish to exit Setup.
< Back
Finish

3. When installation is complete, click on **Finish**.
4. Re-enable the virus protection software running on your computer.

2.2.3. Viewing the User Guide

Click on the View User Guide link to view the *vMax Video Management Software User Guide*, which is available as a PDF document. In order to view or print the *User Guide*, you'll need to have Adobe Reader software installed on your computer. Adobe Reader is available for download from www.adobe.com.

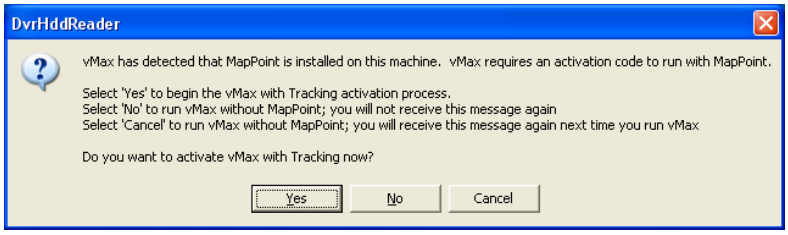
If you are finished, click **Exit**.

This completes the installation of the vMax software.

2.3. Activating the vMax with Tracking Software

When running vMax with Tracking software for the first time, the software detects MapPoint 2009 is installed. An activation window appears, asking if you want to activate the software with MapPoint. The activation process involves the following steps.

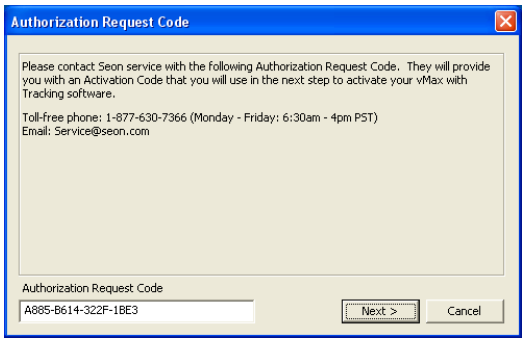
Activation Process	Steps
1. Activation window asks if you want to request an activation key.	• Click **Yes** to begin the activation process. • Click **No** to run vMax software only. Access a menu item on the vMax window title bar to activate. • Click **Cancel** to run without vMax for the current session. You'll be prompted for activation the next time you run the software.
2. Authorization Request code dialog box appears.	Contact Seon Customer Service with the Activation Request Code during business hours. Customer Service will verify the code and provide a a 16-character input activation code.
3. Input Activation code dialog box appears.	Enter the input activation code.
4. Map Viewer window and vMax with Tracking window launch.	The activation process is successful.


DvrHddReader
vMax has detected that MapPoint is installed on this machine. vMax requires an activation code to run with MapPoint.
Select 'Yes' to begin the vMax with Tracking activation process.
Select 'No' to run vMax without MapPoint; you will not receive this message again
Select 'Cancel' to run vMax without MapPoint; you will receive this message again next time you run vMax
Do you want to activate vMax with Tracking now?
Yes
No
Cancel

1. Click **Yes** to begin the activation process.

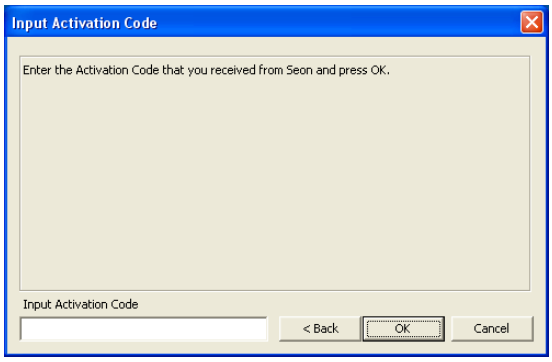
   Clicking **No** or **Cancel** will not run the tracking software. The software can be activated later by right clicking on the title bar of the vMax window and selecting Activate vMax software.

   The Authorization Request Code dialog box appears.


Authorization Request Code
Please contact Seon service with the following Authorization Request Code. They will provide you with an Activation Code that you will use in the next step to activate your vMax with Tracking software.
Toll-free phone: 1-877-630-7366 (Monday - Friday: 6:30am - 4pm PST)
Email: Service@seon.com
Authorization Request Code
A885-B614-322F-1BE3
Next >
Cancel

2. Contact Customer Service for a 16-character Activation Code.
   - Toll free telephone: 1-877-630-7366 Monday to Friday, 6:30 am to 4:00 pm Pacific Standard Time
   - Email: Service@seon.com
3. Click **Next**.

   The Input Activation Code dialog box appears.
4. Enter the Input Activation Code. Click **OK**.



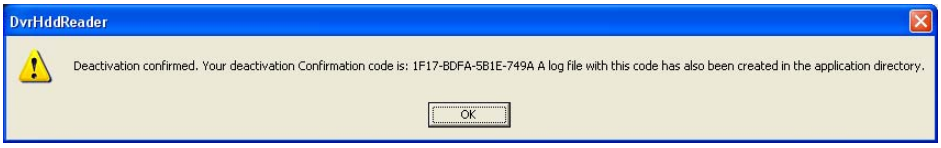
2.3.1. Deactivating the vMax with Tracking Software

In order to install the single license of the vMax with Tracking software on a different computer, the software must first be deactivated.

To deactivate the vMax with Tracking software:

1. Right-click on the title bar in the vMax with Tracking window.
2. Select Deactivate **vMax with Tracking.**

   The following message appears.
3. Click **OK** to continue.

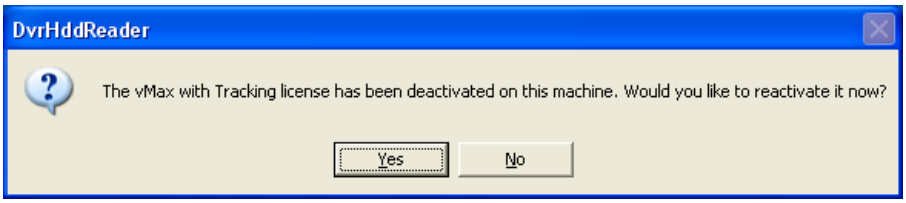

DvrHddReader
Deactivation confirmed. Your deactivation Confirmation code is: 1F17-BDFA-5B1E-749A A log file with this code has also been created in the application directory.
OK

2.3.2. Reactivating the vMax with Tracking Software

In order to reinstall the single license of the vMax with Tracking software on a different computer, the software must be reactivated.

To Activate the vMax with Tracking software:

1. Right-click on the title bar of the vMax with Tracking window.
2. Select Activate **vMax with Tracking.**


DvrHddReader
The vMax with Tracking license has been deactivated on this machine. Would you like to reactivate it now?
Yes
No

3. Click **Yes** to continue.

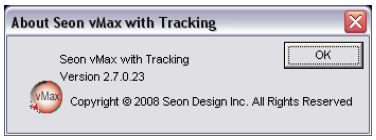
   The Authorization Request Code window appears. The Input Activation Code window appears.
4. Continue with the procedure described on “Activating the vMax with Tracking Software” on page 2–12.

2.4. Viewing the vMax Software Version

The vMax software version of the HD Reader is displayed in the HD Reader window. When contacting Customer Service, please have the software version available.

To display the software version:

1. If the program is open, right click on the title bar or right click on the taskbar button.
2. Click on About Seon vMax.


About Seon vMax with Tracking
OK
Seon vMax with Tracking
Version 2.7.0.23
Copyright © 2008 Seon Design Inc. All Rights Reserved

2.4.1. Upgrading the vMax Software

To upgrade the vMax software, go to **www.seon.com** and click on Online Support to download the latest software.

To upgrade the vMax with Tracking software or to upgrade to vMax with Tracking software, contact your Seon Design sales representative or dealer.

2.5. Connecting the Media Cartridge Reader to a Computer

CAUTION: Equipment damage

Before connecting the Media Cartridge Reader to your computer, make sure the Media Cartridge Reader is not plugged into an electrical outlet.

Recommendation: Where AC power is available, use the AC power cord.

To connect the Media Cartridge Reader to your computer:

1. Connect the Media Cartridge Reader to the media cartridge.
2. Connect the USB connector to a USB 2.0 port on your computer. See Figure 2-2.

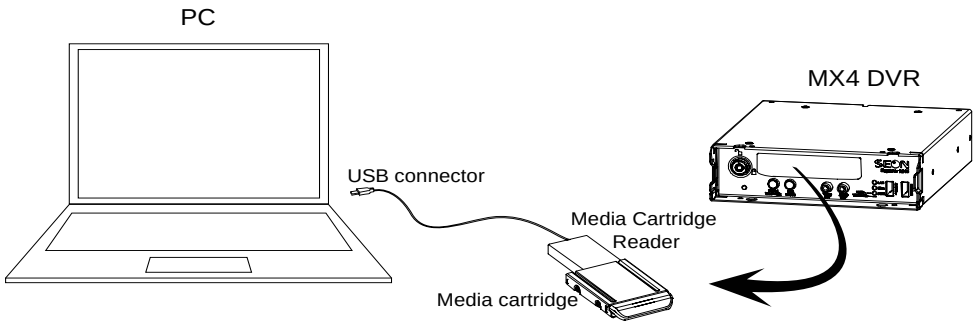


Figure 2-2 Media Cartridge Reader connecting to PC via USB Connector

2.6. Connecting the HD Reader to a Computer

Important: Install the vMax software **before** connecting the HD Reader to your computer.

CAUTION: Equipment damage

Before connecting the HD Reader to your computer, make sure the HD Reader is not plugged into an electrical outlet and the power switch on the back of the HD Reader is OFF.

To connect the HD Reader to your computer:

1. Use the USB cable to connect the HD Reader to a USB 2.0 port on your computer.
2. Connect the power adapter cable to the HD Reader. See Figure 2-3.

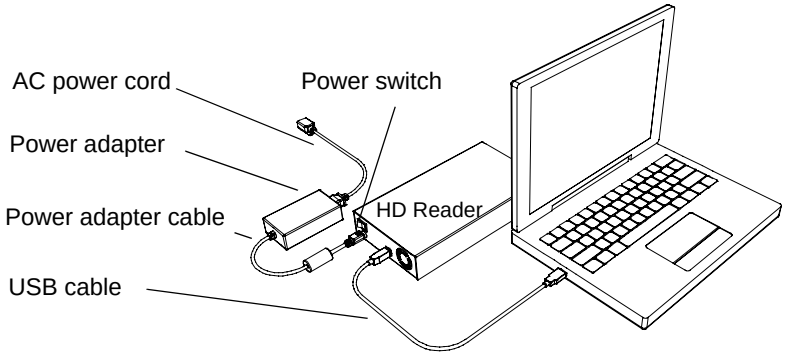


Figure 2-3 Connecting the HD Reader to your computer

3. Plug the AC power cord into the power adapter.
4. Plug the AC power cord into an electrical outlet. See Figure 2-4.
5. **Before** turning the power switch on the back of the HD Reader to ON, follow the instructions for “Inserting a Hard Drive into the HD Reader”.

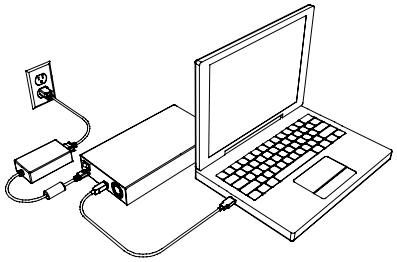


Figure 2-4 Plugging the HD Reader to an AC Outlet

2.6.1. Inserting a Hard Drive into the HD Reader

CAUTION: Equipment damage

Make sure the hard drive is compatible with the HD Reader. Inserting an incompatible hard drive into the HD Reader can seriously damage both devices.

Important: Make sure the power switch on the back of the HD Reader is OFF before inserting a hard drive into the HD Reader.

To insert a hard drive into the HD Reader:

1. Follow the instructions for your DVR to remove the hard drive from the DVR.
2. Insert the hard drive key, turn counter clockwise by ¼ turn until the drive lock is in the unlocked position. See Figure 2-5.
3. Slide the DVR hard drive into the HD Reader until the hard drive is flush with the front of the HD Reader when the handle is closed.
4. Insert the hard drive key, turn clockwise by ¼ turn until drive lock is in the locked position.
5. Turn the HD Reader power switch to ON.

   The hard drive power indicator (green) illuminates when the hard drive is properly inserted and locked. The hard drive access indicator (red) flashes once or twice.

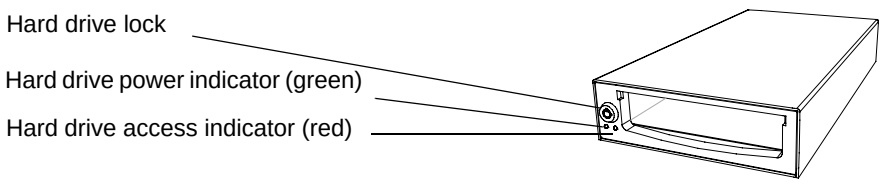


Figure 2-5 HD Reader Front Panel

6. Wait for the computer to detect a USB connection.

   The Safely Remove Hardware icon appears in the notification area on your computer.

   If Windows does not recognize the drive on the first power up, power the HD Reader OFF. Reseat the hard drive until the hard drive is flush with the front of the HD Reader when the handle is closed. Restart the HD Reader. If Windows does not recognize the hard drive on the second power up, contact Customer Service.
7. Start the vMax software as described in page 3–1.

2.6.2. Removing a Hard Drive from the HD Reader

Important: Make sure the power switch on the back of the HD Reader is OFF before removing a hard drive from the HD Reader.

To remove a hard drive from the HD Reader:

1. Close the vMax software and turn the power switch the HD Reader to OFF.
2. Insert the hard drive key, turn counter clockwise by ¼ turn until the drive lock is in the unlocked position.
3. Lift the hard drive handle and pull the hard drive out of the HD Reader.

CHAPTER 3

Managing Video Files

This chapter describes how to use the vMax or vMax with Tracking software to view, archive, and save files.

3.1. Starting the vMax Software

- Double click the vMax icon

on your computer's desktop or
- Click the **Start** button on your computer's taskbar to display the Start Menu. Click **All Programs**, click the Seon folder, click the Seon vMax folder, and click on the SEON vMax icon. The vMax window appears. To continue with using vMax software, see "Using the vMax with Tracking Window" on page 3–2.

3.2. Starting the vMax with Tracking Software

- Double click the vMax with Tracking icon

on your computer's desktop or
- Click the **Start** button on your computer's taskbar to display the Start Menu. Click **All Programs**, click the Seon folder, click Seon vMax, and click on the Seon vMax with Tracking icon.

3.2.1. Using the Map View Window

Important: To see the map location of the vehicle, GPS data is required on the video file.

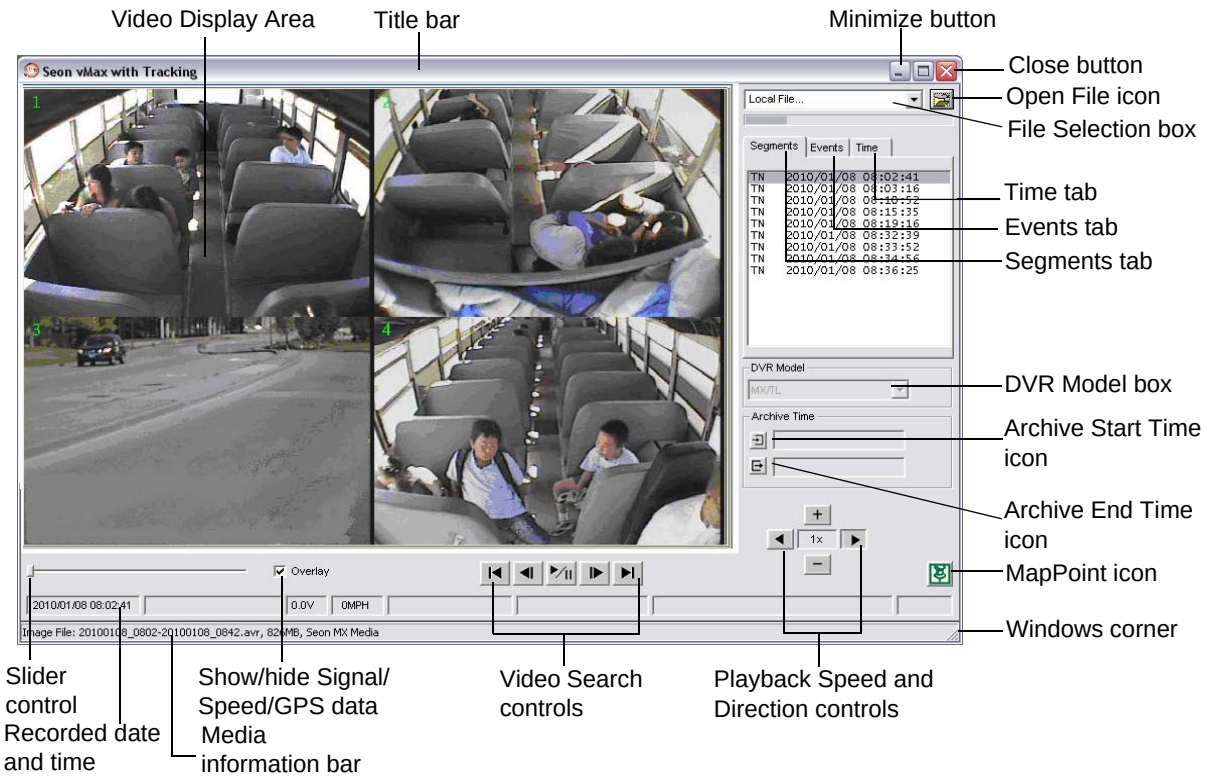
A Map Viewer window and vMax with Tracking window appear on your desktop. Position the windows into the desired location on your desktop.

The Map Viewer window has the following features which lets you customize the view of the vehicle location on the map.

Feature	Description
Auto Center/Scroll	• Select the **Auto Center** check box to keep the vehicle position centered on the map. • Clear the **Auto Center** check box to scroll to a different location on the map.
Direction arrow	• Click near the edge of the window to display a white direction arrow. If Auto Center is selected, the map view returns to the location of the current vehicle position. For more information on MapPoint features, see Getting Started in MapPoint Help.
Show Route	• Select the **Show Route** check box to indicate the vehicle route and direction. • Clear the **Show Route** check box to show the position of the arrow only and not the entire route.
Clear button	Press the **Clear** button to clear the route from the map. The vehicle icon remains visible.

3.2.2. Using the vMax with Tracking Window

The vMax window and vMax with Tracking window are similar. The MapPoint icon is visible only in the vMax with Tracking window.



The vMax with Tracking window has the following features which lets you customize the view of the vehicle location on the map.

Feature	Description
Video Display Area	Right click on the video display area when a file is open to show the various menus. (See “Using the Video Display Area Menus” on page 3–6.)
Title bar	Right click on the title bar to display a pop up window to move, minimize, close the window, display the software version in About Seon HD Reader, or activate/deactivate vMax with Tracking.
Minimize button	Click **Minimize** to minimize the program.
Close button	Click **Close** to end the program.
Open File icon	Click **Open File** to open a file on the local disk or hard drive.
File Selection box	Click the arrow in the File Selection box to access the Local File on the local disk or hard drive.
Time tab	Select the **Time** tab to search the video by date and time.
Events tab	Select the **Events** tab to search the video by Event.
Segments tab	Select the **Segments** tab to search the video by segment date and time.
DVR Model box	Select the DVR model that recorded the video file.
Archive Start Time icon	Click **Archive Start Time** to set the start date and time of the archive video clip.
Archive End Time icon	Click **Archive End Time** to set the end date and time of the archive video clip.
MapPoint icon	If the Map Viewer window is closed, click on the MapPoint icon to open the map screen. To close the Map Viewer window, click on the Close window button.
Playback Speed and Direction controls	See “Playing Back a Video File” on page 3–8.
Meta Data check box (not shown)	Displayed in Explorer version 2.x software only.
Slider control	The slider control only applies to the currently selected video segment. Use the Segment tab to move to another video segment.
Video Search controls	For more information on these features, see “Playing Back a Video File” on page 3–8.
Overlay	
Recorded date and time	
Windows corner	

3.3. Viewing Video Files

The vMax software lets you view

- .eds file formats from the Trooper TR1 or TR4 hard drive or
- .edr file formats from the Explorer EX4, EX8 Plus, or Premier hard drive.

The files are stored on a DVR hard drive or archived on your computer's local disk.

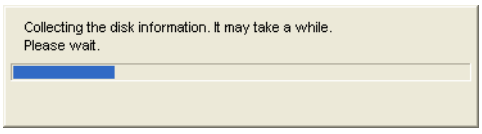
3.3.1. Opening a Video File from the HD Reader Disk

To open a video file from the HD Reader disk:

1. In the vMax with Tracking window, click the arrow in the File Selection box or on the Open File icon to select a file.

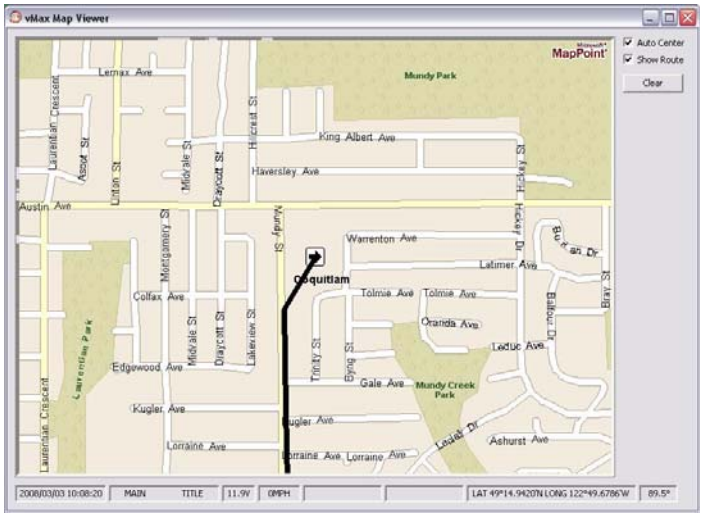
2. Select the hard drive and click the Open Folder icon (click Open).

   The progress bar moves as the contents of the hard drive are read.



3. Click the **Play/Pause** button.

The selected vMax with Tracking video file opens and plays back video footage with the location of the vehicle visible in the Map Viewer window.



4. Click the arrow button in the DVR Model box to select the DVR model which recorded the video file.

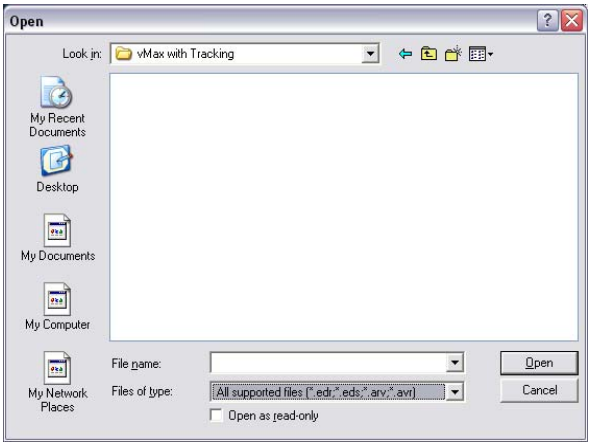
Tip: Double click on a video channel to switch from single camera view to multi camera view and back again. Set up display mode for 4 camera or 9 camera view. See Display Mode on page 3–7.

3.3.2. Opening a Local File

A local file is any previously archived clip in the computer.

To open a Local File:

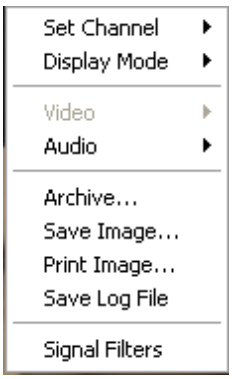
1. Select Local File, which is your computer's local disk.
2. Click the Open Folder icon to browse through your computer's local disk to open an EDR disk image (*.edr), EDSR disk image (*.eds) or Archive files (*.arv or .avr).



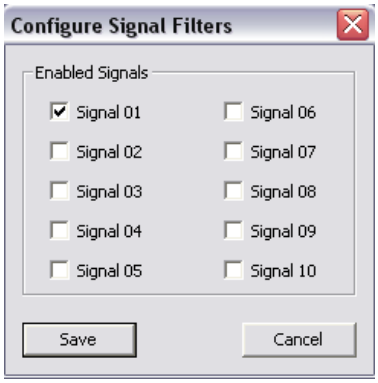
3. Click on the Look in arrow to navigate through the folders on your computer's hard drive, or type the File name.
4. Click **Open**.
5. Click **Play/Pause** button to start playback.

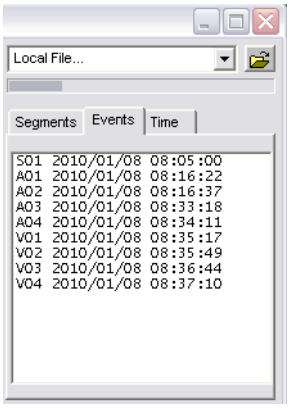
3.3.3. Using the Video Display Area Menus

To display a list of different available menus, right-click anywhere in the video display area of the vMax with Tracking window.



Menu	Description
Set Channel	Depending on your DVR, select from 1 to 9 to set the video channel.
Display Mode	• Select 1 to show one video channel. • Select 4 to show four video channels. For TR1, select 1 or 4. • Select 9 to show nine video channels. • If no camera was attached to the video channel, the screen appears blue.
Audio	• **OFF** to turn the audio off. • **ON** to turn the audio on. • Select 1, 2, 3, or 4 for audio on that audio channel, depending on the media source.
Archive	To archive all video channels and Signal/Speed/GPS data to an .eds file on your computer's disk, see page 3–10.
Save Image	To save the video image on your computer's hard drive, see page 3–12.
Print Image	To print the video image, select your print location from the print menu.
Save Log File	Save .log file to your computer's hard drive.
Signal Filters	Click on Signal Filters to display the Configure Signal Filters dialog box. If you select a signal, for example Signal 01, it appears in the Events list as a signal event, S01, for example.





3.4. Playing Back a Video File

vMax provides video search controls and playback controls as shown in Figure 3-1. The playback speed setting applies to both the continuous play and the step controls.

To play a video file:

1. Click the **Play/Pause** button to start the video clip.
2. Change the playback speed by clicking on Increase playback speed button or the Decrease playback speed button.

To pause a video file:

- Press the **Play/Pause** button.

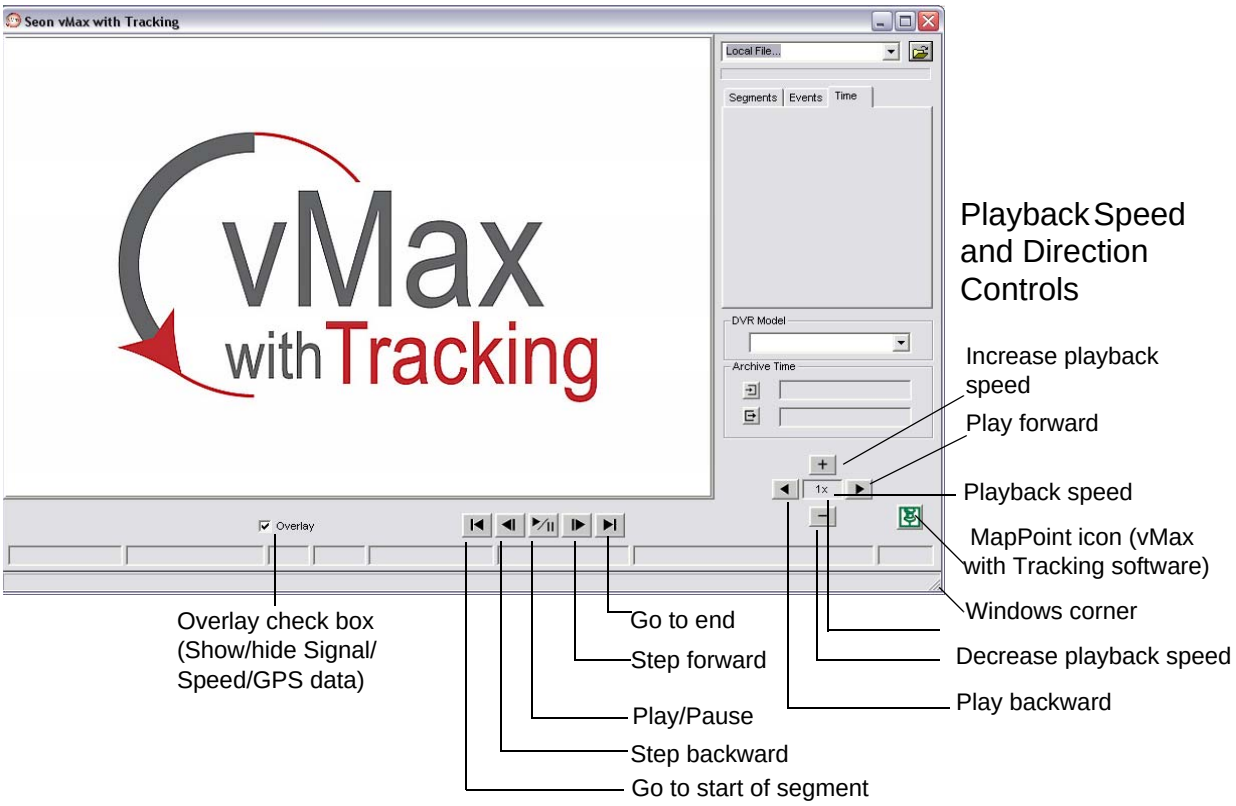


Figure 3-1 Video Playback Controls

Feature	Description
Overlay check box	Select or clear this check box to show/hide: • Signal • GPS LAT (Latitude degrees °, minutes ' and seconds ") LONG (Longitude degrees °, minutes ' and seconds ") • Speed in MPH (miles per hour) • MAIN voltage • TITLE (date and time)

Feature		Description
Video Search controls (Applies only to the currently selected video segment. Use the Segment tab to move to another segment of video.)	Go to end	Click this button to take you to the end of the video segment and to the start of the next segment.
	Step forward	Click this button to step forward one frame at a time when the video is paused.
	Play/Pause	Click this button to play or pause the video clip.
	Step backward	Click this button to step back one frame at a time when the video is paused.
	Go to start	Click this button to take you to the start of the video clip.
Playback Speed and Direction controls	Increase playback speed	Click this button to increase the playback speed.
	Play forward	Click this button to play back video.
	Playback speed	Adjust the playback speed of the video 0.10x, 0.25x, 0.5x, 1x, 2x, 4x, 8x, and16x.
	Decrease playback speed	Click this button to decrease the playback speed.
	Play backward	Click this button to play back the video in reverse.
Meta Data check box (Eight Meta data fields displayed in Explorer version 2.x software only)		

3.5. Searching a Video File

- To search a video file by segment, select a segment date and time from the Segment tab list, and press **Play**.
- To search a video file by event, select an event date and time from the Events tab list, and press **Play**.
- To search a video file by date/time, stop video playback by pressing the **Pause** button. Enter a date and time in the Time tab and click **Seek**.

3.6. Archiving Video and Data Files

vMax software provides the following options for archiving audio/video and signal/speed/GPS data to your computer's disk.

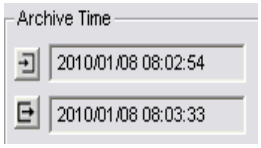
- Archive individual audio/video channels to AVI files.
- Archive all audio/video channels and signal/speed/GPS data to .eds or .edr files (Seon's proprietary DVR file formats).
- Archive signal/speed/GPS data to text (.txt) files and as text overlays in video files.
- Print or save individual video images to .bmp or .jpg files.

Archive File Format		Description
AVR	MX4, TL2, TL4	• Archives data to a a USB drive or to a networked computer.
ARV	EX4, EX8, Premier	• Archives data to a USB drive or to a networked computer.
AVI	Video Clip	• Archives one audio/video channel. • This format is compact and fast to save if Full Size is not checked. If Full Size is checked, the video must be stretched and then recompressed, making it slow to save. • The archived files can be viewed in any standard Windows media player.
.eds	Disk Image (Seon-proprietary format for Trooper TR1 and TR4 DVRs)	• Archives all audio/video channels and signal/speed/GPS data in one file. • This format is compact and fast to save, but can only be read by the vMax software. • Preserves the integrity of the original data. Recommended to back up data for future use or law enforcement.
.edr	Disk Image (Seon-proprietary format for Explorer EX4, EX8, and Premier DVRs)	• Archives all audio/video channels and signal/speed/GPS data in one file. • This format is compact and fast to save, but can only be read by the vMax software. • Preserves the integrity of the original data. Recommended to back up data for future use or law enforcement.
.txt	Data Only–Text	• Archives the signal/speed/GPS data in a text file which can be read and parsed by any text editor.

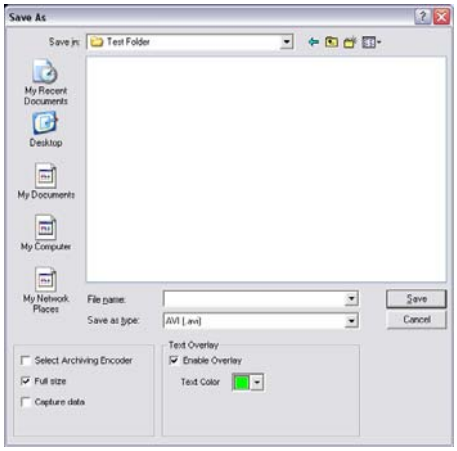
To archive audio/video and signal/speed/GPS data to your computer's disk:

1. Use the video playback or search controls to view the start date and time of the video you want to archive.
2. Locate in Play mode and click **Pause**.
3. Click the **Archive Start Time** (top) icon to set the start date and time.
4. Locate the end of the video you want to archive in Play mode and click **Pause**.

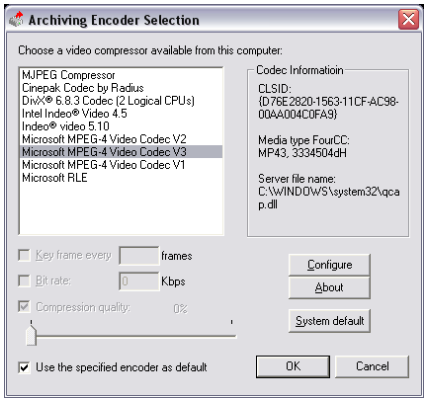
5. Click **Archive End Time.**



6. Right-click on the video display channel you want to archive and select Archive.
7. Choose a directory where you want to save the archive file.
8. Name the archive file.
9. Select the Video Archive file format (AVI) from the Save As Type menu.



10. Select the options related to the archive file format.
11. For optimum performance, clear the Select Archiving Encoder and Full size check boxes. The default encoder is used. If an Archiving Encoder is selected, the Archiving Encoder Selection menu appears (example only). Your window items may vary.



12. Select the desired codec and click **OK**.

13. Repeat the archiving steps for other cameras or other time periods. The archived files can be viewed in any standard media player.

Important: If the progress indicator stops for more than 30 seconds, the computer's disk may be full or the video conversion may have failed. Click **Cancel** to stop archiving.

3.7. Saving a Still Image

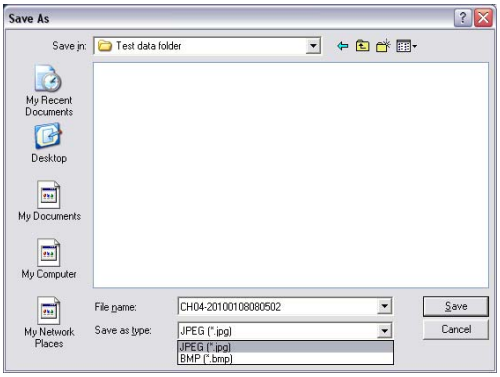
To save individual video images to .bmp or .jpg files:

1. Right-click on the video channel in the video display area.
2. Select **Save Image...**

   The Save As window appears with the File name identified by the video channel and date.

3. Click on the Save as type arrow and select either JPEG (*.jpg) or BMP (*.bmp) file format.

   JPEG files are commonly used for storing and sending photographs on the Internet. Bitmap files are usually not compressed and generally are not well suited for transferring images on the Internet.



CHAPTER 4

Troubleshooting

This chapter provides information and procedures for troubleshooting the Media Cartridge Reader, the HD Reader video player, and the vMax or vMax with Tracking software.

4.1. Troubleshooting

Symptom	Possible Cause	Solution
The vMax or vMax with Tracking software program will not start.	MPEG-4 Codecs and the vMax software may not be installed. Check that you also have a valid sound driver.	If the problem continues, install the latest vMax or vMax with Tracking software program. Install the MPEG-4 Codecs programs that are provided on the CD. See “Installing the Software” on page 2–3.
HD Reader indicators are not illuminated.	The hard drive may not be properly inserted in the HD Reader.	Check that the hard drive is locked into place and the power adapter cable and USB cable are securely connected to the HD Reader and the computer. Close the vMax or vMax with Tracking software program on your computer. Power the HD Reader OFF and insert the hard drive in the HD Reader. See “Inserting a Hard Drive into the HD Reader” on page 2–17.
Error message is displayed “Invalid EDSR media”.	The hard drive is blank.	Check that the hard drive has been recording. Take the HD Reader to the vehicle, and use an LCD monitor to see if there are any segments listed when you search by segment. See “Searching a Video File” on page 3–9. If there are no images recorded on the hard drive, make sure the hard drive is locked into the DVR in the future. Otherwise, the unit will turn ON but will not record.
Clips play back choppy or stop during playback.	Check if other programs are running in the background, for example, Microsoft Outlook.	If you have other programs running, close these programs and play back the clips. Run the Disk Defragmenter application on your computer to free up extra hard drive space to play back clips. Click on **Start**, click on **All Programs**, click on **Accessories**, click on **System Tools**, and then click on **Disk Defragmenter**.

Symptom	Possible Cause	Solution
Not all of the cameras are being displayed in the HD Reader program.	The incorrect DVR type is selected in the DVR model box or single channel is selected.	Check if the other cameras display when you press the **PLAY** button on the DVR front panel. Right click on the Video Display area and select Display Mode. Click on the correct option (1, 4, or 9) for your DVR model. See "Using the Video Display Area Menus" on page 3–6.
Cannot set the archive times.		To set the archive start and stop times, see "Archiving Video and Data Files" on page 3–10.
The video clips are too big.	Depending on the DVR settings, the video clips can be very big. For example, if there are a lot of alarms, the file size can get quite big.	Seon recommends a maximum file size of 15 minutes for archive video clips. For video clips longer than 15 minutes, consider archiving as separate clips. Refer to your DVR *UserGuide* for the approximate sizes of the images at the different rates of recording. If you are running a previous version of the vMax or vMax with Tracking software, (earlier than v.2.0.0) contact Seon for the newest version of the software with the MPEG-4 codecs to reduce the size of the archived clips.
The sound on the video clip is choppy.	The video standard has defaulted to PAL.	Change the video standard default to NTSC. See "Using the Video Display Area Menus" on page 3–6.

Appendix A

Specifications

This appendix provides the product specifications for the vMax Video Management Software.

Note: Specifications are subject to change without notice.

A.1. vMax™ and vMax™ with Tracking Software

Playback Features		**vMax**	**vMax with Tracking**
Channels	View 1, 4, or 9 video channels simultaneously.	•	•
Playback speed	Change the playback speed from 0.10 × to 16× normal speed.	•	•
Forward or backward	• Play video segments forward or backward. • Step forward or backward by one or more images. • Use a slider control to quickly move forward or backward.	•	•
Display text	Show/hide video text displaying signal/ speed/GPS data.	•	•
Search options	• From a Segment list • From an Events list • By date and time	•	•

Archiving Features		**vMax**	**vMax with Tracking**
Video Format	Individual audio/video channels to AVI files	•	•
Text Format in Video Files	Signal/speed/GPS data to text (.txt) files and as text overlays	•	•
Proprietary Formats	All audio/video channels and signal/speed/ GPS data t eds or .edr files (Seon proprietary format)	•	•
Images	Individual video images to .bmp or .jpg files or to printer	•	•

Mapping Features		**vMax with Tracking**
Mapping software	Single license of Microsoft® MapPoint 2009 software	•

Mapping Features		vMax with Tracking
Vehicle position	Displays position of vehicle on street map.	•
Synchronicity	Vehicle position displayed in a separate Map Viewer window, synchronized with the video playback	•
Maps	Complete maps of the US and Canada are provided.	•
Zoom	User adjustable zoom level	•
Auto Center/Scroll	Configurable auto center/scroll (white arrow)	•
Views	Configurable to show only the vehicle's current position or path.	•
Transferability	Copy and paste the map display to Microsoft Office applications such as Word and Power Point, for example.	•

A.2. Media Cartridge Reader

Product Specifications

Supported Seon DVRs	Explorer MX4 Basic and Plus, Trooper TL2, Trooper TL4
AC Power Adapter Input Output	 100–240 VAC, 50–60 Hz 12 VDC

A.3. HD Reader Video Player

Product Specifications

Supported Seon DVRs	• Trooper TR1 • Trooper TR4 Basic and Plus • Explorer EX4 Basic and Plus • Explorer EX8 Plus
Front Panel	• Power (green) and disk activity (red) indicator lights • Hard drive lock
Back Panel	• Power ON/OFF switch • 6-pin 5V/12VDC connector • USB Type B connector
AC Power Adapter Input Output	 100–240 VAC, 50–60 Hz 5 VDC and 12 VDC
Operating Temperature Range	32°F to 122°F (0°C to 50°C)
Size (H×W×D)	1.8 × 6.1 × 10.9 in (47 × 155 × 277 mm)
Weight	3 lb (1.35 kg)

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Seon Design Inc. is a specialist in the design and manufacture of video surveillance systems for mobile applications. Seon has been the preferred solutions provider for the pupil transportation industry since 1999. Today, we are proud that our success in this area has made us the leading manufacturer of mobile video surveillance systems in North America.

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- One (1) year from date of purchase parts and labor on the SA-IR Illuminator
- Three (3) years from date of purchase parts and labor on all other Cameras
- One (1) year from date of purchase parts and labor on the Rogue™ Mobile DVR Systems
- Three (3) years from date of purchase parts and labor on the Explorer® MX4 Mobile DVR Systems
- Three (3) years from date of purchase parts and labor on the Trooper® TL2 Mobile DVR Systems
- Three (3) years from date of purchase parts and labor on the Trooper® TL4 Mobile DVR Systems
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Please call 877-630-7366 or (604) 941-0880 and ask for the Service Department. Be sure to have the model number, serial number and the nature of the problem available for the customer service representative. Prior authorization **MUST** be obtained for all returns, exchanges, or credits. **ITEMS SHIPPED TO SEON WITHOUT A CLEARLY IDENTIFIED RA NUMBER MAY BE REFUSED.**

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(c) if the serial number for the product has been altered in any way.

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